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The First 100 Days Yield Clues to the Fate of Science

The big themes, political forces, and people reshaping federal science and technology policy have emerged from the battle dust of the first 100 days of Republican Congressional control. The overall scene looks like this:

Though doomsayers, such as Rep. George Brown (D-Calif.), are belting out gloomy prophecies of neglect and decline for the American research enterprise, an oddity in today's anti-spending politics is a rush of affection for fundamental science. So far, it has suffered only small cuts. At the same time, many technology programs have been hit hard financially.

The pro-science sentiment does not assure the fiscal growth for which researchers and their institutions hunger, but it does provide some protection against the general budgetary mayhem shaping up on Capitol Hill. What stands out after 100 days is that in the first round of budget cuts, the basic-research agencies have taken only token damage.

The only other favored item in the R&D inventory is the misbegotten Space Station, the one big hardware project that's been granted financial immunity. Though it's a crush-

and industrial technology. Republicans, led on this subject by Rep. Robert Walker (R-Pa.), Chairman of the House Science Committee, counter that the priority should go to science, and that with a few exceptions, government should have no role in research focused on commercial goals. Anticipating cuts or at best a steady financial state for science, Walker dreams aloud about new sources of non-government money for basic research.

Rather than major dependence on the US Treasury, he says, science should tap into the whole \$7 trillion national economy. Walker hasn't said how this is to be done, except for recommending tax credits to induce industry to donate money for building laboratories in academic research insti-

(Continued on Page 2)

In Brief

The peripatetic Bill Clinton regularly crisscrosses the globe, and lags none of his predecessors in making ceremonial gestures—except in the science field, whose ritualistic chiefs despairingly crave a nod from the President. Clinton has never visited two major shrines of science in the capital area, the National Institutes of Health and the National Academy of Sciences. Awarding of the last batch of National Medals of Science and Technology was marred by several abrupt changes of schedule to fit Clinton's convenience, leaving some winners fuming. In the end, Clinton skipped the ceremony, held in December, and afterwards met briefly with the recipients at the White House.

Magnetic fusion, the only mega-project urgently awaiting a political go or no-go decision, is slated for a White-House initiated review by a panel chaired by John Holdren, Professor of Energy, UC Berkeley. The White House said last week that the panel would examine "whether and when the United States should commit itself to constructing major new facilities for fusion energy development." A report is due in June to the President's Committee of Advisors on Science and Technology.

Macmillan Publishers Ltd., the big British firm whose holdings include the weekly journal *Nature*, is for sale. The most likely purchaser is reported to be the German media conglomerate Holtzbrinck, owner of *Scientific American*, among numerous other publications.

Skeptics of the HIV-AIDS link have a champion in Congress, Rep. Gil Gutknecht, a first-term Republican from Minnesota, former auctioneer, and member of the Science Committee. Gutknecht recently sent a pile of questions to Anthony Fauci, Director of the National Institute of Allergy and Infectious Diseases, including: "What is the scientific proof that AIDS is contagious?"

Maverick Candidate Wins Top Post At Academy of Engineering—P. 5

ing weight on a space budget that the White House and Congress have repeatedly and mercilessly cut back, the great albatross survives as a job-making prop for the aerospace industry and as a means of keeping ex-Soviet missileers out of mischief.

Add in momentum and refusal to concede folly, and the Space Station continues its improbable survival, even as the European participants gloomily rethink their costly involvement. No matter. The Space Station is locked into NASA's shrinking budget at \$2.1 billion per year for years to come, and with the White House and Congressional Republicans in harmony on this one, it's there to stay.

The support for basic research looks strong. But whether it's strong enough to withstand the coming budget-cutting epidemic is uncertain. At the White House and on both sides of the aisles in Congress, basic research is unanimously hailed as a proper federal responsibility. It's now a given in politics that basic science is broadly beneficial to society but too costly and uncertain in payoff to expect hardpressed industry to foot the bill. The unanimity on this point is strong and rare. But the political parties split on the extent of government responsibility along the spectrum of science and technology.

Democrats say the government should underwrite science

... Senate Is a Restraint on House Budget Cutting

(Continued from Page 1)

tutions. Because this would be good for science and presumably beneficial in the long run for industry, he assumes that industry would respond positively. Observers of industry's hot pursuit of quick profits, and accompanying retreat from basic research, have their doubts.

Peddling the pro-science line in various forums, Administration economists have been openly hallucinating about glorious returns from investments in basic research. For example, in an economics tutorial for the National Science Board on March 23, Joseph Stiglitz, of the White House Council of Economic Advisers, told the assembled mandarins that "evidence collected by economists" shows that, by some measures, "the social return to R&D averages perhaps 50 percent." He did not mention that the "evidence" is skimpy and disputed by other economists. But since there's no constituency for contesting the exaggerated claim, it goes unchallenged.

Even the science enthusiasts, however, recognize that money for substantial growth isn't to be had. Just keeping basic-research funding level, or a bit ahead of inflation, is regarded as a heroic goal and a welcome gain when most everything else is on a downward path. How far down can they go? Very far, according to a list of "Illustrative Cuts" issued last month by Budget Committee Chairman John Kasich (R-Ohio). In his scenario, for example, the budget of the National Institutes of Health would drop 5 percent next year and remain there, without adjustment for inflation, for the next four years—a prospect deemed "devastating" by NIH Director Harold Varmus.

NIH's many friends in Congress have vowed to protect the agency. Several are well placed, including Senator Mark Hatfield (R-Oregon), Chairman of the Senate Appropriations Committee, and Rep. John Porter (R-Ill.), Chairman of the House Appropriations Subcommittee for NIH. The dual attractiveness of health research and basic research is a major advantage for NIH, but it's not clear that they can withstand the coming tidal wave of anti-spending politics.

The political unanimity on science is accompanied by serious dissonance on the worth of government support for industrial research. Technology programs for this purpose, heretofore the fast-growing centerpiece of the Clinton Administration's R&D policy, have already been slashed by Congressional Republicans, and far deeper, maybe terminal cuts, lie ahead. The outcome, however, is not predestined.

The industrial beneficiaries of the programs were slow to mobilize. But a last-ditch lobbying effort by high-tech firms achieved some success in the Senate, which reduced the cuts that the House had voted for industrial grants financed by the Departments of Defense and Commerce.

The White House, however, has not invested any great amount of political strength in this cause, which involves policy obscurities that draw scant notice in the general press. If the Administration's reluctance to wage a fight persists, the

future of these programs will depend solely on the evolving politics of Capitol Hill. The House is steaming with passion for budget reductions, but the Senate is of mixed mind and less inclined to a clear-cutting attack on federal R&D programs.

The most horrific scenarios have originated in the House, starting last fall with Rep. Kasich's first list of spending cuts for fulfilling the deficit-reduction promises of the Contract With America. However, Senate Republicans have not embraced the Contract or the hit list, nor have they produced cut-and-kill lists of their own.

Nonetheless, with House Speaker Gingrich dominating Capitol Hill, the House sets the budget-cutting agenda, while the Senate provides some moderating influence. For example, the House voted to take back \$107 million from the Advanced Technology Program of the National Institute of Standards and Technology. The Senate voted for a \$32-million reduction. A conference of the two houses produced a \$90-million reduction.

The House voted for a \$504-million reduction in the Pentagon's Technology Reinvestment Project (TRP), which would essentially wipe out the so-called dual-use research program. The Senate voted to cut TRP by \$200 million. The conference agreed on a \$300-million reduction.

The rapid pace and controversies of the first 100 days have obscured the fact that the action was merely a prologue to the real show, which will get under way when Congress returns from spring recess at the end of this month.

So far, legislative activities in the sci/tech area have mainly focused on taking back some of the money appropriated last year by the Democratic-controlled Congress prior to its demotion to minority status. Since a great deal of that money was already spent or committed before Congress began its retrospective, the sums reclaimed are relatively small, perhaps a billion or two, mainly from the Pentagon's civilian-military research programs and the NIST grants to industry. Only slight nicks were inflicted on the National Institutes of Health and the National Science Foundation—both involving reductions in funds for laboratory facilities.

The big tests of Republican intent and power will start

(Continued on Page 3)

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... Clinton's Tight R&D Budget Faces Further Cuts

(Continued from Page 2)

next month when serious politicking commences on the \$72-billion R&D budget Clinton submitted in February for fiscal 1996, which begins next October 1. The House and Senate Budget Committees will issue the big numbers within which the Appropriations Committee will try to work, and the final stages of appropriations hearings will be wound up.

By late spring or early summer, Congressional decisions should be in on most of the big issues that have been roiling the science establishment since Election Day, including budgets for the new year and the fates of various Republican targets, such as the US Geological Survey, the National Biological Service, and the Congressional Office of Technology Assessment.

For R&D, the Clinton budget was sparse, essentially a standstill for most agencies after inflation is factored in. But if the Republicans are to be true to their promises of sharp deficit reductions en route to a balanced budget by the year 2002, science budgets will be tempting targets, even though scientists and their political friends genuinely believe that this is no place to save money. The budget hackers observe that the same is said by all beneficiaries of the federal government.

Congressman George Brown, former Chairman of the House Science Committee, says the Clinton R&D budget was inadequate to begin with, and that enactment of the deficit and tax reductions promised by the Contract With America will wreck the national R&D enterprise and undermine the country. By Brown's various reckonings, the arithmetic of the Contract would require anywhere from a 30 to 50 percent cut in federal R&D spending.

A budget analysis issued last month by Brown and his Democratic minority colleagues on the Science Committee credits the Republicans with recognizing that government must support basic research because the market doesn't. Though a partisan assault, the Democratic analysis sketches an accurate picture of today's politics of R&D decision making.

Referring to Chairman Walker's unabashed promotion of his own pet projects, the Democrats tauntingly observed: "When the Chairman believes in a technology—such as hydrogen energy or manned space programs—he and his colleagues are more than happy to provide whatever direct support they deem the effort to deserve. The justification they offer is that the 'risk' (market failure) of such investments is too great to rely on markets.

"In short," the Democrats continued, "if Republicans like a technology, then it is by decree deemed to be 'basic research,' it is risky and the government should act in the face of market failure. If they don't like a technology or they know nothing about it, they turn a blind eye to risk and cry that the market must decide. Those who would chastise bureaucrats in technology support programs for picking 'winners and losers' would engage in that forbidden effort themselves."

Reductions Ahead, But

Funding for most federal programs, science included, will drop below present levels in the coming fiscal year, Science Committee Chairman Robert Walker (R-Pa.) said April 6 in his own press briefing on the first 100 days of the Republican-controlled Congress.

Walker merits notice on research spending because, in addition to his Science chairmanship, he is Vice Chairman of the Budget Committee, which recommends overall spending levels for the Appropriations Committee. He's also an aspiring science statesman, and an old buddy of Speaker Gingrich, who apparently relies on him for science-policy advice.

As on many other occasions, Walker told the press that basic research deserves priority over technology programs. He said that "the National Science Foundation does reasonably well within that kind of a scenario." But he didn't offer any numbers or predictions, apart from saying that while science will have to do its share for deficit reduction, "we will try to cut responsibly."

Walker seemed a bit less certain than in the recent past about his long-time goal of creating a federal Department of Science [SGR, April 1]. A bill of his now in the drafting stage would establish the Department as refuge for science agencies in Energy, Commerce, and perhaps other Departments and agencies targeted for abolition. But first, he said, the existing Departments must be terminated, and at this point, their demise is not assured.

The Chairman, a big fan of the Space Station, also intends to bolster that venture politically with an authorization bill extending to the completion of construction. Under Congressional rules, big items like the Space Station are supposed to be written into law before the Appropriations Committees provide them with money.

But when support is shaky, as is the case with the Station, backers often avoid risking an authorization battle and focus their efforts on the money process. Walker said, however, that in the present financial circumstances, a law stating there shall be a Space Station would "help the appropriators with their prioritizing."

The political alignments assure that massive cuts are on the way for the entire federal budget, but basic science programs may emerge the least cut of all, while the Clinton Administration's big technology programs take a beating, both for ideological and financial reasons. With so many calls for help going to the White House, it's doubtful the programs would rate a serious Presidential rescue effort.

The real danger for science is an end-of-session anti-spending stampede set off by the deficit demagogues, of whom there are plenty.—DSG

NIH's Reprimanded Pair Receive a De-Reprimand

The National Institutes of Health reversed course on April 5 and withdrew the official reprimands it bestowed February 15 upon its stellar outcasts, Ned Feder and Walter Stewart.

Their alleged offense, now scrubbed from the files, consisted of using NIH stationery to communicate with a government commission studying scientific misconduct [SGR, March 1]. The explanation offered for removing the reprimands was that "they could have believed" it was legitimate for them to use the stationery.

The episode of reprimand and turnabout suggests some frailty in the quality of administrative judgment at the world's premier biomedical-research institution.

Stewart and Feder have been under written orders since 1993 to refrain from pursuing scientific misconduct on government time or with government resources. Crime in the lab is their passionate interest, but NIH finally got fed up with their self-initiated investigations and restricted them to routine administrative chores.

But they are well known and respected by many concerned with scientific misconduct, and last fall received an invitation to testify before the Commission on Research Integrity of the Department of Health and Human Services (HHS), chaired by Kenneth Ryan, of Harvard Medical School. Permission was granted by L. Earl Laurence, Acting Deputy Director and Executive Officer of their workplace, the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). In making the exemption, Laurence said it was NIH policy to cooperate with HHS departmental inquiries.

At the conclusion of that testimony, Feder and Stewart were asked to provide any material they felt might be of use to the Commission. In response they sent a copy of a stillborn Congressional report highly critical of Robert Gallo and his disputed role in AIDS research, with an accompanying letter on NIH stationery urging Ryan to root out evil from science.

That's what brought on the reprimands from NIDDK's Laurence, who accused the pair of "a flagrant violation of my directive to you that you are not to use government resources for activities related to scientific misconduct." The reprimands, he said, were for using "NIDDK letterhead."

Feder and Stewart then reminded Laurence of the permission he had granted for their testimony to the Ryan Commission, and they argued that the Gallo report and the letter were sent in response to a request from the Commission. They made these points in a letter to Laurence dated February 25, on NIDDK letterhead. They also protested to Chairman Ryan that they had been penalized for cooperating with his Commission.

Laurence's response, five weeks later, announced the withdrawal of the reprimands. "I have reviewed your February 25, 1995, memorandum to me. I have determined that you could have believed that delivering the material you sent to the Ryan Commission on NIDDK letterhead was the continuation of a previously authorized activity. In such

circumstances, a reprimand would be unjustified."

Following receipt of that communication, Feder and Stewart sent a memo to Chairman Ryan: "Subject: Thanks for Help in Removing Letters of Reprimand."

Meanwhile, Feder and Stewart are in another row over their involvement with misconduct matters, this one concerning the large archives they accumulated in their decade-long investigations of scientific misdeeds. Filling 30 file cabinets and about 150 cartons, the cache includes correspondence and data from many so-called whistle-blowers claiming knowledge of scientific frauds and other misconduct.

In 1993, when the two were reassigned to administrative duties, the collection was entombed in their two-room office in the basement of Building 8 on the Bethesda campus, except for some materials stored in Feder's home nearby. Feder and Stewart contend that much of the material was submitted to them in confidence by underlings in research institutions around the country, and assert they have a responsibility to protect their vulnerable sources.

The files remained locked up and out of controversy until recently. But now they are of great interest to the parties in a forthcoming misconduct appeals hearing that will involve many well-known figures in the scientific community. The case is that of Thereza Imanishi-Kari, of Tufts University, who is appealing findings of misconduct by the Office of Research Integrity (ORI). The appeal, before the HHS Departmental Appeals Board, is scheduled to start June 12 and is expected to run for about three weeks.

Imanishi-Kari is small fry, and ordinarily the case would attract scant attention. But in commonly used shorthand terms, this one is better known as the "Baltimore case," after Nobelist David Baltimore, a co-author with Imanishi-Kari on the 1986 *Cell* paper that led to charges of data fabrication and ultimately to findings of misconduct. Baltimore was not charged, but his strong public defense of Imanishi-Kari has made him a major figure in the case.

In preparation for the hearing, ORI and Imanishi-Kari's attorneys have turned their attention to the files of Feder and Stewart, who played a big part in investigating the case in its earliest stages and in embarrassing NIH into taking the charges of misconduct seriously. Without their involvement, it is a near certainty that the case would have wilted away under the tender, self-protective care of MIT, where Imanishi-Kari conducted the research, Tufts, which later hired her, and NIH.

In February, in response to a discovery request from Imanishi-Kari's attorneys, Feder and Stewart agreed to go through the locked-up files and retrieve materials relevant to the upcoming appeals hearing. But, claiming a need to protect the confidentiality of their informants, they insisted on doing it themselves. In March, apparently not satisfied with their progress, the HHS Office of General Counsel sent

(Continued on Page 5)

Upstart Candidate Wins Engineering Academy Vote

The candidate opposed by the inner circle of the National Academy of Engineering was elected NAE President last week in a close vote and an unprecedented electoral upset at the elite organization.

The election was notable for the establishment's efforts to stop the winner and for members' expressions of discontent with the peak honorary institution of American engineering. The NAE, founded in 1964, is an offshoot of the far older and snootier National Academy of Sciences. Together, they hold inflated views of their Congressionally chartered roles as advisers to the federal government.

The winner, Harold Liebowitz, former Dean of Engineering at George Washington University, won by 697 votes to 660 for Cornelius Pings, currently President of the Association of American Universities (AAU), the Washington lobby for big academic science.

Pings, who has held the AAU post since March 1993, was considered a shoo-in for the NAE Presidency. Upon receiving the nomination last October, he told the AAU Board that he would leave sometime before July 1, when the six-year NAE Presidential term begins. An AAU search committee has meanwhile been looking for a successor. Pings will be leaving as scheduled, an AAU official told SGR last week.

Pings was on the ballot as the sole choice of the NAE Nominating Committee, an old-boy assemblage, chaired by MIT Chairman Paul Gray. After nominating Pings, and with Liebowitz's candidacy looming, the nominating committee wrote to all NAE members, telling them that it had considered 90 candidates and Pings was the choice, embodying the desired qualities. Among these were "the highest ethical standards," leadership ability, familiarity with Washington, and durability for six and possibly 12 years in the job—a boost for Pings, age 65, as compared to Liebowitz, 71.

Liebowitz got on the ballot as a so-called petition candidate, which required endorsement by 5 percent of the 1750-member Academy. Campaigning long and hard, Liebowitz received endorsements from over 400 members of the NAE, but even so the Nominating Committee would not endorse him as a candidate. In 1991, in his first run as a petition

candidate, Liebowitz startled the NAE management by winning 42 percent of the vote against the incumbent President Robert White. The close call scared the inner circle, which did not hesitate this time around to campaign openly against Liebowitz.

Despite his maverick candidacies, Liebowitz is not an outsider in NAE affairs. A member since 1975, he has served two three-year terms as NAE Home Secretary and has taken on various committee chores. His electoral pitch was far from incendiary, consisting mainly of proposals to make the NAE more influential in national technological policy affairs and to do more to elevate the prestige of engineering and encourage broader membership participation in NAE advisory affairs. Nothing remarkable there, and really not so different from what Pings proposed in his low-key campaigning.

On policy matters, it might be said that little difference existed between them, thus heightening the expectation of victory for house candidate Pings. Furthermore, a good number of people closely associated with NAE affairs regard Liebowitz as a busy self-promoter with a limited capacity for presiding over the organization. Pings, former Provost of the University of Southern California, had also been active in NAE affairs. He projected a smoother, more high executive-style manner than Liebowitz, who tends to be garrulous and repetitive in conversation to the point of inducing flight.

Nonetheless, the Liebowitz candidacy brought forth a lot of support from members who are unhappy about the NAE, as revealed in a flood of letters that crisscrossed the country in support of his election.

Expressing support for Liebowitz, a Harvard faculty engineer wrote, "Except for one trip, I was never asked to serve NAE in any capacity since my election in 1987. My very close colleagues elected after me have all completed their services on the membership or other committees. I make annual suggestions for NAE councilor elections with no results. I don't believe I am an isolated case. There are many of us simply not plugged into the network."

An engineer in Arizona wrote to Liebowitz: "Ever since I, as a new member of NAE, observed the campaign waged against you in the last presidential election, I have been aware that, left to themselves, the 'establishment' would continue to seek self-perpetuation."

Another letter of support, from a Washington, DC, engineer, said, "I am concerned about the objectives of the 'good old boys' club."

An engineer in Massachusetts wrote that corporate executives dominate the NAE to the exclusion of serious roles for "working engineers" in academe and industry. "Some of the output of the NAE," he stated, "could easily be mistaken for output from the National Association of Manufacturers."

An engineer in Texas criticized the nominating committee, stating that NAE members should not tolerate "the handpicking of a single candidate, favored by a few insiders, to the exclusion of all others."

Feder & Stewart

(Continued from Page 4)

two of its lawyers to assist in the search, over the protests of Feder and Stewart. Last week, HHS sent a truck to Feder's home to collect what Harriet Rabb, HHS General Counsel, described as "a considerable stock of government records stored there." The haul consisted of three cartons.

Responding to a protest from Feder and Stewart's attorney, Rabb wrote on April 6 that her lawyers would "search only for documents responsive to the discovery request," and that confidentiality of other materials would be carefully protected. Feder and Stewart, she said, were over-reacting when they claimed that "confidences may be broken by DHHS lawyers."

Technology Policy: Rare Humor Amid the Dim Prose

The multi-mega-bytes of prose attacking and defending the Clinton Administration's industrial-technology programs constitute generally dreary reading in which a recent, rare bit of acerbic wit stands out.

It comes from the Cato Institute, a far right-wing, libertarian Washington think tank, whose Director of Regulatory Studies, Edward L. Hudgins, testified March 23 before the Technology Subcommittee of the House Science Committee. Bashing the industrial-aid programs of the National Institute of Standards and Technology, Hudgins urged the legislators not to be swayed by the fact that beneficiaries of the NIST money speak favorably of the programs. He then proceeded as follows:

"Most individuals receiving free goods are pleased to have them and would like the handouts to continue. If one dropped money from a plane over Washington and traced each dollar, one would find, first, that everyone picking up the money was happy to have it, and, second, that most individuals spend the money in ways we approve, for example, to purchase food or shoes, or to invest in a small business. But this would not be good public policy," Hudgins argued, as he proceeded to discuss the skills of the federal officials managing the programs:

"It is not by virtue of their keen abilities to spot future market needs or their creative talents for inventing new products or services that bureaucrats acquire power to distribute investment funds.

"It is by virtue of their ability to function well in a rule-bound organization that is insulated from market forces, or their ability to secure a political appointment. If anything, one should suspect that the capacities that make for successful bureaucrats and politicians would make dull, incompetent entrepreneurs.

"To put it bluntly," he continued, "if bureaucrats and political appointees did have special abilities to pick winners and losers, they would become entrepreneurs or would work for entrepreneurs, and actually produce the new products for which they claim consumers clamor. They would put their own money, not taxpayers', and their creativity and energy, where their mouths are. It is important to note that bureaucrats tend not to discover the Steve Jobs and Bill Gates of the world."

Hudgins recited a list of corporate recipients of NIST funds through its Advanced Technology Program, including: 3M, \$6.1 million; BP Chemicals, \$5.2 million; Caterpillar Inc., \$3 million; Texas Instruments, \$4 million; DuPont, \$9.6 million; IBM, \$1.9 million, and Xerox, \$1.8 million.

"These are hardly new, poverty-stricken, desperately struggling businesses that cannot fend for themselves without corporate welfare," he commented.

The standard counter to his thesis is contained in a statement issued February 23 by the Coalition for Technology Partnerships, a lobbying combine of some 100 firms, big and small, organized to defend NIST's Advanced Technol-

ogy Program (ATP) and others of a similar nature. The membership includes most of the big companies cited by Hudgins.

"The basic mission of the ATP is to undertake high-risk, game-changing research to develop enabling technologies with widespread benefits for the US economy and US industry," the Coalition stated, adding: "ATP research priorities are set by industry. The selection process is fair, and based entirely on technical and business merit. Half of all ATP awards and joint ventures go to small business directed partnerships...."

"The real payoff of the ATP," the statement went on, "is the future long-term economic growth that will come from the introduction of new products and industrial processes based on ATP-supported research. Without ATP, these technological opportunities would be slowed, or ultimately forfeited to foreign competitors more able to make key investments in longer-term, higher risk research."

While the battle of statements continues, the general expectation is that Congress, having taken back a good deal of NIST and Pentagon industrial-aid money appropriated for this year, will severely slash or terminate the programs next year. Though bigger, the programs are akin to efforts that were backed by both Reagan and Bush. What's different now is tighter money and Bill Clinton's close identification with the programs, which makes them appealing targets.

Job Changes & Appointments

P. Patrick Leahy, head of the National Water Quality Assessment Program at the US Geological Survey, has been appointed Chief Geologist and head of the Survey's Geologic Division. The posts have been filled on an acting basis by **John R. Filson**, since **Ben Morgan** stepped down last year to return to research.

The gusher of executive-level departures at NASA continues, with retirement plans announced by **John M. Klineberg**, Director of the Goddard Space Flight Center, who plans to be out around May 1. Deputy Director **Tom Huber** left on March 31; his replacement, due to arrive April 23, is **Joseph H. Rothenberg**, a computer industry executive and former project manager for the Hubble Space Telescope.

Yvonne T. Maddox has been appointed Deputy Director of the National Institute of Child Health and Human Development, succeeding **Wendy Baldwin**, who last year became head of the NIH Office of Extramural Research. Maddox formerly was chief of the Pharmacology and Physical Sciences Branch of the National Institute of General Medical Sciences.

Robert L. Trachtenberg, Deputy Administrator of the NIH Alcohol, Drug Abuse, and Mental Health Administration from 1979-93, has been appointed Chief Operating Officer of the American Psychiatric Association. He has most recently been Executive Director of the National Association of Psychiatric Health Systems.

In Print

(Continued from Page 8)

to 31,000, while requested dollar support more than doubled, from \$2.3 billion to \$4.8 billion; and "the younger the investigator, the better the priority score and the success rate."

Women in NIH Extramural Grant Programs: Fiscal Years 1984-1993 (NIH Publication No. 95-3876; 154 pp.), similar to *Study Section Trends*, but focused on how women are faring in grants competition. In FY 1993, the report says, women received 16.4 percent of research grant dollars, up from 10.2 percent a decade earlier.

Ordering information: The DRG will be in new quarters, starting May 1. Until then, order from: National Institutes of Health, Division of Research Grants, Office of Grants Information, 5333 Westbard Ave., Bethesda Md. 20892; tel. 301/594-7248; fax 301/594-7384.

After May 1: NIH, DRG, Office of Grants Information, Suite 3034, Mail Stop Code 7762, 6701 Rockledge Dr., Bethesda, Md. 20892-7762; tel. 301/435-0714.

From the European Science Communication and Information Network (ESCIN):

ESCIN Membership Directory (31 pp., no charge), lists heads of public-information offices and related functions in major research-supporting agencies in Austria, Belgium, France, Germany, The Netherlands, Norway, Sweden, Switzerland, and the UK—useful contacts for finding out what's going on in their domains. Established in 1993, ESCIN embraces national research councils and other organizations similar to the US National Science Foundation. The directory describes the European organizations, and lists major publications, associated research agencies, addresses, phone, fax, and e-mail connections.

Order from: Hein Meijers, Head of Communications, Nederlandse Organisatie voor Wetenschappelijk Onderzoek (NWO), Laan van Nieuw Oost Indie, 131, PO Box 93138, 2509 AC Den Haag, The Netherlands; tel. (31) 70/344-0713; fax (31) 70/385-0971; e-mail: news@nwo.nl

From the General Accounting Office (GAO), no charge:

Tuberculosis: Costly and Preventable Cases Continue in Five Cities (GAO/HEHS-95-11; 55 pp.), a discouraging report on a disease formerly considered under control in the US. Reviewing incidence and public-health measures in Atlanta, Chicago, El Paso, Los Angeles, and Newark, the GAO found that TB "is predominantly impacting the poor and urban racial and ethnic minorities," and that surveillance and treatment programs are not keeping pace with the spread of the disease. Noting 1991 estimates by Battelle researchers of \$700 million in treatment costs nationwide, the GAO forecasts \$1.5 billion by 1999. Rep. John Dingell (D-Michigan), top Democrat on the House Commerce Committee, requested the report.

Equal Employment Opportunity: Group Representation in Key Jobs at the National Institutes of Health (GAO/GGD-95-83; 18 pp.), a statistical glimpse into a tension-

ridden subject of which there is little open discussion in the biomedical arena—the shares of employment among gender, racial, and ethnic groups at the homebase of NIH. The GAO reports that since 1986, when NIH was cited for limited compliance with 1983 affirmative-action goals, substantial gains at all grade levels have occurred among Caucasian and minority women. Between 1984-93, the percentage of Caucasian men declined slightly in the middle and top job categories, but they remained in the majority, with 80 percent of highest-ranking and 48 percent of the middle-range jobs in 1993. For minority men, the GAO found no change or a decline in the proportion of jobs held. The report was requested by Reps. Henry Waxman (D-Calif.) and Patricia Schroeder (D-Colorado) and Senator Olympia Snowe (R-Maine).

Security Clearances: Consideration of Sexual Orientation in the Clearance Process (GAO/NSIAD-95-21; 60 pp.), surveys the hiring processes of eight federal agencies that account for most of the security clearances in the federal government, and reports "no evidence that sexual orientation has been used as a criterion in the security clearance process for federal civilian and contractor employees since 1991." Its findings, the GAO says, were corroborated by gay and lesbian groups and attorneys who handle security cases.

The agencies covered in the report are: Departments of Defense, State, and Energy, the US Information Agency, FBI, Secret Service, and Customs Service. Not included: the CIA and other intelligence agencies. The report was requested by two ranking Democrats from California, Reps. George Brown, of the Science Committee, and Ronald Dellums, of the Committee on National Security.

Order from: USGAO, PO Box 6015, Gaithersburg, Md. 20884-6015; tel. 202/512-6000; fax 301/258-4066. To obtain by fax a list of recent GAO reports and Congressional testimony, telephone by touchtone for instructions: 301/258-4097.

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In Print

Official reports and other publications of special interest to the research community

(Copies of publications listed here are available from the indicated sources—not from SGR)

From the Congressional Office of Technology Assessment (OTA):

Teachers and Technology: Making the Connection (GPO Stock No. 052-003-01409-2; 292 pp., \$19), says hardware, software, and methods exist for improving pre-college education. The big lack, OTA asserts, is in training teachers to make good use of technology. The report notes that TVs and videocassette recorders are fairly plentiful in schools, and that the current inventory of 5.8 million classroom-based computers averages out to one per nine students. OTA reports, however, that only about 15 percent of technology budgets are allotted to in-service training, while schools of education skimp on technology training. The report was requested by Senator Thad Cochran (R-Miss.), Chairman of the Appropriations Subcommittee on Labor, Health, Human Services and Education; Senator Edward Kennedy (D-Mass.), senior Democrat on the Labor and Human Resources Committee, and what's now called the House Committee on Economic and Educational Opportunities. Kathleen Fulton of the OTA staff was Project Director for the report.

An 8-page summary of the report is available from OTA without charge (202/224-8996).

A 20-minute video which "highlights innovative uses of technology by teachers" is expected around mid-May (price: \$35)—catalog identification: AVA 19694VNB1; order from: National Technical Information Service, tel. 703/487-4253.

Order the full report from: Superintendent of Documents, PO Box 371954, Pittsburgh, Pa. 15250-7974; tel. 202/512-1800; fax 202/512-2250.

For instructions on accessing this and other OTA reports electronically: OTA Telecommunications and Information Systems Office: tel. 202/228-6000; e-mail: sysop@ota.gov

From the Science Policy Research Division of the Congressional Research Service (CRS), part of the Library of Congress, all at no charge:

Public and Commercial Land Remote Sensing from Space: Landsat 7, Lewis and Clark, and Private Systems (95-346 SPR; 58 pp.), reviews the muddled mix of technology, national security, public versus private roles, international commercial competition, and much more in Washington's often-changing policy shifts on remote-sensing systems. *Lewis and Clark*, small and inexpensive satellites, are forthcoming products of NASA's new barebones approach to space technology, in contrast to the costly Landsat 7, scheduled for launch in December 1998. The report, by David P. Radzanowski, points out that the market has not been responsive to the Congressionally endorsed goal of commercialized sensing operations, and that basic policy issues of public and private roles remain unresolved.

AIDS: Federal Funding for Research and Prevention, FY 81-96 (95-352 SPR; 6 pp.) and **AIDS and Other Diseases: Selected Federal Spending and Mortality Statistics** (95-363 SPR; 2 pp.), reports that government-wide spending on AIDS—for research, treatment, education, and other purposes—will reach a record \$7.1 billion this fiscal year, and is budgeted, Congress willing, for \$7.8 billion in the fiscal year that begins next October 1.

In current annual research expenditures per disease by the National Institutes of Health—a popular yardstick in biomedical lobbying circles—cancer is at the top, with \$2 billion, followed by AIDS, \$1.5 billion; heart disease, \$805 million, and diabetes, \$311 million. The *Disease* report shows heart disease leading the mortality list, with 219 per 100,000, followed by cancer, with 173 per 100,000. AIDS ranked ninth, with 9.9 deaths per 100,000. The reports are by Judith A. Johnson.

Intelligent Transportation Systems [ITS] Program: Benefits, Costs, and Concerns (95-347 SPR; 11 pp.), describes the fledgling but ambitious ITS program, in which the US Department of Transportation (DOT), in collaboration with other federal agencies, industry, and local governments, is trying to improve traffic flow with the aid of communications, sensing, and information-processing technologies. With \$352 million earmarked for ITS projects between FY 1992-94, the report says, ITS is beginning to pay off in reduced travel times, fewer accidents, environmental improvements, and lighter regulatory burdens on trucking firms. Noting, however, that close public-private collaboration and 10-15 years may be required for a full flowering of the technology, the report points out that ITS does not conform to Republican preferences for leaving hardware development to the private sector. A reduced federal role, it suggests, "would likely result in substantial delays in the wider use of many ITS technologies." Paul F. Rothberg wrote the report.

Sudden Infant Death Syndrome (SIDS): Risk Factors and Federal Research Funding Levels (95-315 SPR; 5 pp.), says NIH will spend \$46 million this year on SIDS and research related to SIDS, the reported cause of 6000 to 7500 deaths per year, making it the leading cause of death between ages one month to one year.

Order these reports through a House or Senate member. Senate switchboard, 202/224-3121; House, 202/225-3121. Cite the Congressional Research Service as the source, with report title and number.

From the National Institutes of Health, Division of Research Grants (DRG), no charge:

DRG Study Section Trends: Fiscal Years 1983-1992, Characteristics of Applications and Study Section Actions (NIH Publication No. 95-3874; 138 pp.), tracks numbers of research applications at NIH in basic science and clinical fields, success rates, dollar amounts awarded, distribution by gender and race, etc. Among the trends noted: over the decade, competing grant applications rose from about 24,000

(Continued on Page 7)

